RISC PC

Data Sheet 3
ARM700: the next step

April 1994

A high-performance ARM700 processor will be the next processor to become available in the Acorn Risc PC. This processor is a logical development of the ARM610, with the following improvements:

- cache size doubled from 4kB to 8kB
- improved write buffer
- enlarged Translation Lookaside Buffer (TLB) in the Memory Management Unit
- co-processor interface for FPA11 (Floating-Point Accelerator)

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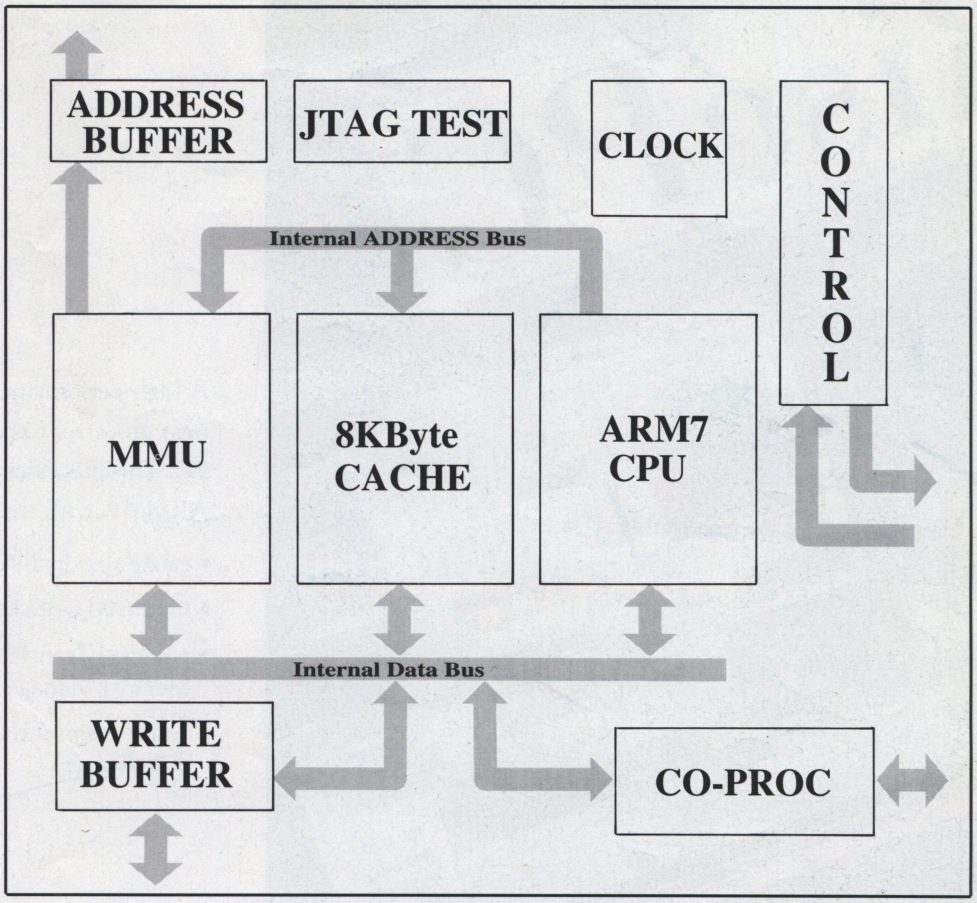
These improvements mean that the ARM700 can run at even higher clock speeds than the ARM610 without exceeding the capacity of its internal data bus, thereby delivering even greater performance.

The co-processor interface of the ARM700 enables you to fit an Acorn FPA11 chip (see separate information sheet) into the socket provided on the main processor card. The FPA processor has a peak throughput of up to 5 MFLOPS (Millions of FLoating point Operations Per Second) at 25MHz and achieves an average throughput in excess of 3 MFLOPS for a range of calculations. Floating point performance of the Risc PC is increased by as much as a factor of 50. Computationally intensive applications that benefit from the performance increase typically include spreadsheets, relational databases, finite element analysis, CAD, image analysis, modelling and vector graphics.

This is a block diagram showing the layout of the ARM700 processor:



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